STUDY OF CLINICAL AND BIOCHEMICAL PROFILE IN NEONATAL SEIZURES IN A TERTIARY CARE CENTRE

ABSRACT

Introduction: Neonatal seizures are most common and distinctive clinical manifestations of dysfunction of neurological system**.** Neonatal seizures represent non-specific responses of the immature nervous system to varied insults and result in considerable neonatal mortality and long-term morbidity including motor and cognitive disabilities in the childhood.neonatal seizures are more common in preterm compared to term neonates and metabolic abnormalities are common cause of neonatal seizures

Aim of the study: 1.To study the incidence of biochemical abnormalities associated with neonatal seizures.2.To study the clinical presentation, time of onset and its relation to the neonatal seizures in newborn unit, department of paediatrics, Government kilpauk medical college hospital, Chennai.

Methods: A prospective hospital based study. This study was conducted for a period of six months from april 2017 to September 2017,a total of 70 newborns with seizures were enrolled in the study.after taking complete history and appropriate physical examination,blood sample was collected for detecting metabolic abnormalities before instituting specific therapy.

Results: In my study, neonatal seizures occured more commonly in term babies especially in appropriate for gestational age babies compared to preterm neonates. There was a male predominance. Most seizures are due to intramural deliveries and occurred within 72 hours of life. Seizures are more common in babies with birth weight > 2.5kg and subtle seizures ,the most commonest type. The most common biochemical abnormality noted was hypoglycemia (50%) and hypocalcemia (41.17).There were cases reported with combination of hypocalcemia/hypomagnesemia and hypoglycemia/hypocalcemia particularly in preterm neonates but their incidence is low.

Conclusion: The transient metabolic abnormalities are easily treatable when identified early and are associated with good prognosis. Hence biochemical work up should be done in all neonates with seizures and should be included as the first line of investigations in all cases, thereby preventing the further occurrence of seizures and overuse of anticonvulsants.it also improve the prognosis and outcome of the neonate and prevent the long term neurological sequelae associated with it.